STIC Search Report
EIC 2600

TO: Jeffrey Smith **Location: Lab 3-Duke St.** **Art Unit : 2624** **Thursday, September 14, 2006** **Case Serial Number: 10677194**	**From: Virgil O. Tyler(ASRC)** **Location: EIC 2600** **KNX-8B68** **Phone: 571-272-8536** **Virgil.Tyler@uspto.gov**

Search Notes

Dear Examiner Smith,

Attached are the search results (from commercial databases) for your case.

Tags mark the patent/articles, which might be of interest. After you review all records including tagged and untagged records, if you wish to order the complete text of any record, please submit request(s) directly to the STIC-EIC 2600 Email Box or hand carry the request to the front desk of the respective EIC.

Please call if you have any questions or suggestions. I have enclosed a Search Results Feedback Form to facilitate further comments or suggestions. Please take a few minutes to share with us your feedback.

Thanks

Virgil O. Tyler

Virgil O. Tyler,CLIN Assistant

Technical Information Specialist

ASRC Aerospace Corporation

EIC 2600

EIC2600
Fast & Focused Search Feedback Form
(Optional)

USPTO

The search results generated for your *Fast & Focused* search request are attached.
If you have any questions or comments about the scope or the results of the search, please contact *the EIC Searcher*
who conducted the search *or contact*:
Pamela.Reynolds@uspto.gov, EIC2600 Team Leader, 2-3505

Voluntary Results Feedback Form

➤ *I am an examiner in Workgroup:* [_____]   *Example: 2611*

➤ *Were you satisfied with the coverage and search strategies of this search?* [____] YES [____] NO

Why/Why Not?

➤ *Relevant prior art found; Search results used as follows:*

[____] 102 rejection

[____] 103 rejection

[____] Cited as being of interest.

[____] Helped examiner better understand the invention.

[____] Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

[____] Foreign Patent(s)

[____] Non-Patent Literature (journal articles, conference proceedings, etc.)

➤ *Relevant prior art not found:*

[____] Results verified the lack of relevant prior art (helped determine patentability).

[____] Search results were not useful in determining patentability or understanding the invention.

Comments:

```
Set     Items     Description
S1      93616     (ASSOCIATE? OR CHANG? OR MODIFY OR MODIFIES OR (UPPER OR L-
                  OWER)()CASE??)(3N)(EXT OR EXTENSION OR FILE()(NAME?? OR EXTEN-
                  SION) OR JPEG OR JPG OR GIF OR TIF OR LETTER?? OR CHARACTER??
                  OR NUMERAL?? OR NUMBER?? OR COMPRESS???)
S2      318       (COD??? OR ENCOD???)(3N)S1
S3      1504      JOINT()PHOTOGRAPHIC()EXPERTS()GROUP OR GRAPHIC()INTERCHANG-
                  E()FORMAT OR TAG()IMAGE()FILE()FORMAT
S4      1         AU=(DEBRITO, D? OR DEBRITO D?)
S5      168727    (IMAG? OR PICTURE?? OR PHOTO OR PHOTOS OR PHOTOGRAPH?? OR -
                  JPEG OR GIF OR LOGO?? OR ICON?? OR GLYPH?? OR GRAPHIC? OR GRA-
                  PHIX OR PICTOGRAM?? OR PICTOGRAPH?? OR SYMBOL?? OR PATTERN??)-
                  (3N)(ENCOD? OR CODE?? OR CODING)
S6      437801    (CAMERA?? OR CCD OR (CAPTUR??? OR CHARGE()COUPLED OR IMAG?-
                  )()DEVICE??)
S7      2287550   ORIENTAT??? OR ROTAT??? OR LANDSCAPE OR PORTRAIT OR REVERS-
                  E?? OR UPSIDE()DOWN OR RIGHT()SIDE()UP OR 90()DEGREES OR CLOC-
                  KWISE OR CLOCK()WISE OR COUNTERCLOCKWISE OR COUNTER()CLOCKWISE
S8      7         S2(3N)(S3 OR S5 OR S6)
S9      0         S8(3N)S7
S10     7         RD S8   (unique items)
S11     5         S10 NOT PY>2003
S12     1         S2(3N)S7
S13     0         S4 NOT PAIN
```

11/3,K/1   (Item 1 from file: 2)
DIALOG(R)File   2:INSPEC

08781985   INSPEC Abstract Number: B2003-12-6135C-105, C2003-12-5260B-252
  Title: **Enlargement method for JPEG-coded images with the prediction of
high-frequency components**
  Author(s): Takahashi, Y.; Taguchi, A.
  Author Affiliation: Dept. of Electr. & Electron. Eng., Musashi Inst. of
Technol., Tokyo, Japan
  Journal: Proceedings of the SPIE - The International Society for Optical
Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA)
vol.5014   p.31-41
  Publisher: SPIE-Int. Soc. Opt. Eng,
  Publication Date: 2003 Country of Publication: USA
  CODEN: PSISDG   ISSN: 0277-786X
  SICI: 0277-786X(2003)5014L.31:EMJC;1-X
  Material Identity Number: C574-2003-197
  U.S. Copyright Clearance Center Code: 0277-786X/03/$15.00
  Conference Title: Image Processing: Algorithms and Systems II
  Conference Sponsor: SPIE; Soc. Imaging Sci. & Technol
  Conference Date: 21-23 Jan. 2003   Conference Location: Santa Clara, CA,
USA
  Language: English
  Subfile: B C
  Copyright 2003, IEE

  ...Abstract: blocking effects. Thus, the LP enlarging method is not able
to be applied to the **JPEG coded image** . We **modify** the LP enlarging
method in order to apply the JPEG coded image. The novel method...

11/3,K/2   (Item 2 from file: 2)
DIALOG(R)File   2:INSPEC

04520510   INSPEC Abstract Number: B90002908
  Title: **A variable-length-code-selective DPCM coding scheme for image
signals**
  Author(s): Itoh, S.; Monta, H.; Tsuruta, T.; Utsunomiya, T.
  Author Affiliation: Fac. of Sci. & Eng., Sci. Univ. of Tokyo, Noda, Japan
  Journal: Transactions of the Institute of Electronics, Information and
Communication Engineers B-I   vol.J72B-I, no.8   p.649-57
  Publication Date: Aug. 1989 Country of Publication: Japan
  Language: Japanese
  Subfile: B

  ...Abstract: the same group in the three preceding lines. This real-time
coding scheme can efficiently **encode** natural **images** at the designated
coding rate, by **changing** the **number** of quantizer levels in each line.

11/3,K/3   (Item 3 from file: 2)
DIALOG(R)File   2:INSPEC

03477100   INSPEC Abstract Number: C85033822
  Title: **Machine code plotter (ZX81 utility)**
  Author(s): Rapley, S.A.
  Journal: ZX Computing   vol.2, no.2   p.28-9

Publication Date: Aug.-Sept. 1984   Country of Publication: UK
CODEN: ZXCOEI ISSN: 0263-0613
Language: English
Subfile: C

...Abstract: explanation of how they enable you to print designs on the
screen. A list of **character** **codes** and their **associated** **graphics**
characters is given.

11/3,K/4   **(Item 4 from file: 2)**
DIALOG(R)File   2:INSPEC
(c) 2006 Institution of Electrical Engineers. All rts. reserv.

03091509   INSPEC Abstract Number: C83031008
 Title: **Dual-head line printer uses two Z80s**
  Author(s): Grummett, L.
  Author Affiliation: Trilog Inc., Irvine, CA, USA
  Journal: Mini-Micro Systems   vol.16, no.3   p.197-204
  Publication Date: March 1983 Country of Publication: USA
  CODEN: MISYDF ISSN: 0364-9342
  Language: English
  Subfile: C

  ...Abstract: quality, and a dual-processor architecture that allows I/O
and print parameters to be **changed** independently. Near- **letter** -quality
printing, bar- **code** printing, labeling and **graphics** are becoming valid
line-printer applications, thanks to these mechanical and electronic
innovations.

 11/3,K/5   **(Item 1 from file: 144)**
DIALOG(R)File 144:Pascal
(c) 2006 INIST/CNRS. All rts. reserv.

 16875149   PASCAL No.: 04-0536232
 Temporal video segmentation for real-time key frame extraction
 2002 IEEE international conference on acoustics, speech, and signal
processing : Orlando FL, 13-17 May 2002. Volume I: Speech processing,
neural networks for signal processing. Volume II: Signal processing theory
and methods, audio and electro-acoustics, multimedia signal processing.
Volume III: Signal processing for communications, sensor array and
multichannel signal processing, design and implementation of signal
processing systems. Volume IV: Image and multidimensional signal
processing, industry technology tracks, special sessions
  CALIC J; SAV S; IZQUIERDO E; MARLWO S; MURPHY N; O'CONNOR N E
  Department of Electronic Engineering, Queen Mary, University of London,
United Kingdom; Centre for Digital Video Processing, Dublin City University
, United Kingdom
  IEEE Signal Processing Society, United States
  International conference on acoustics, speech, and signal processing (
Orlando FL USA) 2002-05-13
  Journal: Proceedings of the ... IEEE International Conference on
Acoustics, Speech and Signal Processing, 2002 vol IV, 3632-3635
  Language: English
Copyright (c) 2004 INIST-CNRS. All rights reserved.

...English Descriptors: processing; Frame based representation; Abstracting
 ; Information theory; Information retrieval; Information browsing; Image
 analysis; Content analysis; **Change** detection; Signal **compression** ;

Video **coding** ; Data compression; **Image** compression; Image processing

07947039   PASCAL No.: 87-0475492
Binary-image-manipulation algorithms in the image view facility
ANDERSON K L; MINTZER F C; GOERTZEL G; MITCHELL J L; PENNINGTON K S;
PENNEBAKER W B
IBM, Thomas J. Watson res. cent., Yorktown Heights NY 10598, USA
Journal: IBM journal of research and development, 1987, 31 (1) 16-31
Language: ENGLISH

English Descriptors: Office automation; Image processing; Binary image;
  Electronic mailing; Display; Algorithm performance; Information
  compression ; **Change** ; Scale; **Rotation** ; Non- **coded** information

```
Set     Items     Description
S1      63002     (IMAG? OR PICTURE?? OR PHOTO OR PHOTOS OR PHOTOGRAPH?? OR -
                  JPEG OR GIF OR LOGO?? OR ICON?? OR GLYPH?? OR GRAPHIC? OR GRA-
                  PHIX OR PICTOGRAM?? OR PICTOGRAPH?? OR SYMBOL?? OR PATTERN??)-
                  (3N)(ENCOD? OR CODE?? OR CODING)
S2     463183     (CAMERA?? OR CCD OR (CAPTUR??? OR CHARGE()COUPLED OR IMAG?-
                  )()DEVICE??)
S3    2283341     ORIENTAT??? OR ROTAT??? OR LANDSCAPE OR PORTRAIT OR REVERS-
                  E?? OR UPSIDE()DOWN OR RIGHT()SIDE()UP OR 90()DEGREES OR CLOC-
                  KWISE OR CLOCK()WISE OR COUNTERCLOCKWISE OR COUNTER()CLOCKWISE
S4      62287     (ASSOCIATE? OR CHANG? OR MODIFY OR MODIFIES OR (UPPER OR L-
                  OWER)()CASE??)(3N)(EXTENSION OR FILE()(NAME?? OR EXTENSION) OR
                   JPEG OR JPG OR GIF OR TIF OR LETTER?? OR COD??? OR ENCOD??? -
                  OR CHARACTER?? OR NUMERAL?? OR NUMBER?? OR COMPRESS???)
S5        313     JOINT()PHOTOGRAPHIC()EXPERTS()GROUP OR GRAPHIC()INTERCHANG-
                  E()FORMAT OR TAG()IMAGE()FILE()FORMAT
S6          5     AU=(DEBRITO, D? OR DEBRITO D?)
S7       4923     (S1 OR S2)(3N)S3
S8          1     S7(3N)S4
S9          1     S7(3N)S5
S10         1     S9 NOT S8
S11        15     S7(S)S4
S12        13     S11 NOT (S6 OR S8 OR S9)
S13         4     S12 NOT (BARREL OR INTELLIGENT OR COPIER OR BAR()CODE OR X-
                  ()RAY OR METER)
S14     18540     S4(3N)(ENCOD? OR CODE?? OR CODING)
S15        21     S14(3N)EXTENSION
S16        18     S15 NOT AD=20031001:20060914/PR
S17         2     S16 AND IC=G06K?
S18        16     S16 NOT S17
S19      7590     (EXTENSION OR FILE()(NAME?? OR EXTENSION))(3N)(JPEG OR JPG
                  OR GIF OR TIF OR LETTER?? OR COD??? OR ENCOD??? OR CHARACTER??
                  OR NUMERAL?? OR NUMBER?? OR COMPRESS??? OR LETTER??)
S20       934     S19(3N)(ENCOD? OR CODE?? OR CODING)
S21         5     S20(3N)S3
S22         0     S21 AND IC=G06K?
S23         2     S21 NOT (NEURAL OR MAP OR RIVETS)
S24        50     (S1 OR S2)(3N)S20
S25         0     S24(3N)S3
S26         0     S24(S)S3
S27         4     S24 AND S3
```

6/3,K/1   (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

08362027   **Image available**
METHOD AND APPARATUS FOR TRANSFERRING IMAGE ATTRIBUTE

PUB. NO.:   2005-110287 [JP 2005110287 A]
PUBLISHED: April 21, 2005 (20050421)
INVENTOR(s):   **DEBRITO DANIEL N**
APPLICANT(s):   HEWLETT-PACKARD DEVELOPMENT CO LP
APPL. NO.:   2004-289568 [JP 2004289568]
FILED: October 01, 2004 (20041001)
PRIORITY: 03 677194 [US 2003677194], US (United States of America),
                October 01, 2003 (20031001)

INVENTOR(s):   **DEBRITO DANIEL N**

 6/3,K/2   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0015429539 - Drawing available
WPI ACC NO: 2005-778104/200579
XRPX Acc No: N2005-642616
**User authorization method for use in computerized system, involves
assigning code character to each of password characters at authorization
site, where assignment of code characters is frequently changed by
authorization site**
Patent Assignee: HEWLETT-PACKARD DEV CO LP   (HEWP)
Inventor: **DEBRITO D N**
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
US 20050246764	A1	20051103	US 2004836726	A	20040430	200579	B

Priority Applications (no., kind, date): US 2004836726   A   20040430

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20050246764	A1	EN	13	6	

Inventor: **DEBRITO D N**

Original Publication Data by Authority

Inventor name & address:
 Debrito, Daniel N ...

 6/3,K/3   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0015005475 - Drawing available
WPI ACC NO: 2005-353380/200536
XRPX Acc No: N2005-288445
Digital image attributes e.g. image orientation, conveying method, involves

encoding orientation of digital imaging device using case of letters in
extension of file name associated with digital image by module encode
attributes
Patent Assignee: DEBRITO D N (DEBR-I); HEWLETT-PACKARD DEV CO LP (HEWP)
Inventor: **DEBRITO D N**
Patent Family (2 patents, 2 countries)
Patent   Application
Number   Kind   Date   Number   Kind   Date   Update
US 20050074170 A1   20050407 US 2003677194   A   20031001 200536 B
JP 2005110287   A   20050421 JP 2004289568   A   20041001 200536 E

Priority Applications (no., kind, date): US 2003677194 A 20031001

Patent Details
Number   Kind Lan   Pg Dwg   Filing Notes
US 20050074170 A1   EN   13   7
JP 2005110287   A   JA   9
Inventor: **DEBRITO D N**

Original Publication Data by Authority

Inventor name & address:
 DEBRITO DANIEL N ...

 ... **Debrito, Daniel N**

 6/3,K/4   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0005307834 - Drawing available
WPI ACC NO: 1990-304754/199040
XRPX Acc No: N1990-234243
**Queued serial peripheral interface for data processing - many serial
transfers are written in memory by controlling device together with command
and control information**
Patent Assignee: MOTOROLA INC (MOTI)
Inventor: **DEBRITO D N** ; GROVES S E; HEENE M R; HILL S C; JELEMENSKY J
Patent Family (1 patents, 1 countries)
Patent   Application
Number   Kind   Date   Number   Kind   Date   Update
US 4958277   A   19900918 US 198777469   A   19870724 199040 B
                                US 1989342651   A   19890421

Priority Applications (no., kind, date): US 1989342651 A 19890421

Inventor: **DEBRITO D N ...**

Original Publication Data by Authority

Inventor name & address:
... **DeBrito, Daniel N**

 6/3,K/5   (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0005076052 - Drawing available
WPI ACC NO: 1990-060301/199009
**Timer channel with match recognition features for computer timer - has
sixteen-channel subsystem with dedicated service processor to disable match
recognition latch of channel being serviced**
Patent Assignee: DELCO ELECTRONICS CORP (DELC-N); MOTOROLA INC (MOTI)
Inventor: **DEBRITO D N** ; GOLER V B; MILLER G L; NEMIROVSKY M
Patent Family (5 patents, 5 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
EP 355465	A	19900228	EP 1989113867	A	19890727	199009	B
US 5042005	A	19910820	US 1988234111	A	19880819	199136	E
EP 355465	B1	19941026	EP 1989113867	A	19890727	199441	E
DE 68919018	E	19941201	DE 68919018	A	19890727	199502	E
			EP 1989113867	A	19890727		
KR 199605388	B1	19960424	KR 198911623	A	19890816	199915	E

Priority Applications (no., kind, date): US 1988234111 A 19880819

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 355465	A	EN	24	5	

Regional Designated States,Original: DE FR GB IT

| EP 355465 | B1 | EN | 27 | 5 | |

Regional Designated States,Original: DE FR GB IT

| DE 68919018 | E | DE | | | Application EP 1989113867 |

Based on OPI patent   EP 355465

Inventor: **DEBRITO D N ...**

Original Publication Data by Authority

Inventor name & address:
... **DEBRITO D N ...**

... **Debrito, Daniel N., 4014 Northwest Witham Hill Drive Apt No.85,
  Corvallis Oregon 97330, US ...**

... **Debrito, Daniel N., 4014 Northwest Witham Hill Drive Apt No.85,
  Corvallis Oregon 97330, US ...**

DIALOG(R)File 350:Derwent WPIX

0012749833 - Drawing available
WPI ACC NO: 2002-602960/200265
XRPX Acc No: N2002-478089
Combined control type electrical component has operation knob that changes
   rotation **direction of** encoder **and detection** pattern **is distributed**
on encoder **axially corresponding to switch elements**
Patent Assignee: ALPS ELECTRIC CO LTD (ALPS)
Inventor: HONMA S; OBA K
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
JP 2002170461	A	20020614	JP 2000363170	A	20001129	200265	B

Priority Applications (no., kind, date): JP 2000363170 A 20001129

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 2002170461	A	JA	8	14	

Combined control type electrical component has operation knob that changes
   rotation **direction of** encoder **and detection** pattern **is distributed**
on encoder **axially corresponding to switch elements**

07805036   **Image available**
ENCODER, DATA CONVERSION APPARATUS, ENCODING PROGRAM AND DATA CONVERSION
PROGRAM

PUB. NO.:   2003-299083 [JP 2003299083 A]
PUBLISHED: October 17, 2003 (20031017)
INVENTOR(s): TAKAHASHI KENICHI
              OZAWA KAITAKU
APPLICANT(s): MINOLTA CO LTD
APPL. NO.:   2002-095940 [JP 200295940]
FILED: March 29, 2002 (20020329)

ABSTRACT
... of an image in a short period of time by simplifying processing of a
JPEG (**joint** **photographic** **experts** **group**) **encoder** for performing
rotation processing of an image.

SOLUTION: When an input image data are subjected to rotation processing...

13/3,K/1   (Item 1 from file: 347)

02785276   **Image available**
ENCODING SYSTEM

PUB. NO.:   01-082876 [JP 1082876 A]
PUBLISHED: March 28, 1989 (19890328)
INVENTOR(s):   FUNADA MASAHIRO
                 SUZUKI YOSHIYUKI
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP
                 (Japan)
APPL. NO.:   62-241586 [JP 87241586]
FILED: September 25, 1987 (19870925)
JOURNAL: Section: E, Section No. 788, Vol. 13, No. 312, Pg. 15, July
                 17, 1989 (19890717)

ABSTRACT
... To execute encoding whose compression efficiency is satisfactory by
constituting the titled system of a **code** showing a **pattern** and a **code**
 for showing a **rotation** of its pattern and its symmetrical state, etc.,
and also, **changing** the respective **code** lengths in accordance with a
state that the pattern can take, and setting them to...

13/3,K/2   (Item 1 from file: 350)

0009052519 - Drawing available
WPI ACC NO: 1998-610760/
XRPX Acc No: N1998-475077
**Camera position detector e.g. for production of motion pictures and video
sequences - has inertial sensors incorporated into structure of motion
picture or video camera to detect its movement along three orthogonal axes,
as well as angular rotation about three axes**
Patent Assignee: COMMOTION INC (COMM-N)
Inventor: KIVOLOWITZ P
Patent Family (3 patents, 80 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 1998051083	A1	19981112	WO 1998US9284	A	19980508	199851	B
AU 199872919	A	19981127	AU 199872919	A	19980508	199915	E
US 5881321	A	19990309	US 1997853871	A	19970509	199917	E

Priority Applications (no., kind, date): US 1997853871 A 19970509

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 1998051083	A1	EN	26	3	

National Designated States,Original: AL AM AT AU AZ BA BB BG BR BY CA CH
    CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC
    LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
    TJ TM TR TT UA UG UZ VN YU ZW
Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH
    GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
AU 199872919   A   EN   Based on OPI patent   WO 1998051083

  Alerting Abstract ...A time **code** is **associated** with the position

information provided by the processing unit. A memory unit stores the
position...

13/3,K/3   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0009028846   - Drawing available
WPI ACC NO: 1998-586068/199850
Related WPI Acc No: 2000-207939
XRPX Acc No: N1998-456912
**Object tracking using TV camera - by sequentially classifying detected
changes in detected objects into number of set state changes based on set
rules**
Patent Assignee: HITACHI DENSHI KK (HITN); HITACHI DENSHI LTD (HITN);
  KOKUSAI DENKI KK (KOKZ)
Inventor: ENDO M; ITO W; OKADA T; UEDA H
Patent Family (5 patents, 27 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
EP 878965	A2	19981118	EP 1998108707	A	19980513	199850	B
JP 11032325	A	19990202	JP 1998130540	A	19980513	199915	E
JP 11069342	A	19990309	JP 1997226153	A	19970822	199920	E
US 6404455	B1	20020611	US 199878521	A	19980514	200244	E
JP 3657116	B2	20050608	JP 1998130540	A	19980513	200538	E

Priority Applications (no., kind, date): JP 1997124329 A 19970514; JP
  1997226153 A 19970822

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 878965	A2	EN	39	26	

Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR
  IE IT LI LT LU LV MC MK NL PT RO SE SI

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 11032325	A	JA	14		
JP 11069342	A	JA	9		
JP 3657116	B2	JA	18		Previously issued patent JP 11032325

Original Publication Data by Authority

Original Abstracts:
...and a reference background video signal, and a change of a detecting
state from the **change** of the **numbers** of objects detected in the
continuous input video signal.

13/3,K/4   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0008991705   - Drawing available
WPI ACC NO: 1998-546857/199847
XRPX Acc No: N1998-426087
**Portable information processor e.g. electronic camera - includes display
modification unit to change contents of information displayed by display
unit**

Patent Assignee: NIKON CORP   (NIKR)
Inventor: EJIMA S; OHMURA A; OMURA A
Patent Family (2 patents, 2 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
JP 10240436	A	19980911	JP 1997104169	A	19970422	199847	B
US 20020109782	A1	20020815	US 199741718	P	19970327	200256	E
			US 1997972678	A	19971118		
			US 200260315	A	20020201		

Priority Applications (no., kind, date): JP 1997104169 A 19970422; JP 1996347120 A 19961226

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 10240436	A	JA	23	22	
US 20020109782	A1	EN			Related to Provisional US 199741718
					Continuation of application US

1997972678

Original Publication Data by Authority

Original Abstracts:
...on the screen of a LCD. Alternatively, the displayed image could have its magnification level **changed** . A **number** of different techniques and structures are provided to detect various movements of the electronic

```
     S17        2   S16 AND IC=G06K?
? t/3,k/all
```

17/3,K/1   (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

01506943   **Image available**
CONTROLLER OF PRINTER

```
PUB. NO.:       59-218543  [JP 59218543  A]
PUBLISHED:      December 08, 1984 (19841208)
INVENTOR(s):    ISHIKAWA TAKAO
APPLICANT(s):   TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP
                (Japan)
APPL. NO.:      58-093023  [JP 8393023]
FILED:          May 26, 1983 (19830526)
JOURNAL:        Section: P, Section No. 350, Vol. 09, No. 90, Pg. 106, April
                19, 1985 (19850419)

INTL CLASS:     G06F-003/12;  G06K-015/00 ; B41J-005/30
```

ABSTRACT
... of connection or the range of interchangeability for a printer
controller by transmitting automatically a **changing** instruction for
extension control **code** to the printer side in case the mutual
combination is changed between a host device...

17/3,K/2   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0008018013 – Drawing available
WPI ACC NO: 1997-111225/199711
XRPX Acc No: N1997-092026
**Read write facility for smart data cards – allows user to enter password
that allows period of card validity to be changed**
Patent Assignee: BAYER AG   (FARB)
Inventor: GEORG H; HARTMANN G; HORSTER P; WEIKERT G
Patent Family (15 patents, 28 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
EP 757337	A2	19970205	EP 1996111749	A	19960722	199711	B
DE 19528297	A1	19970206	DE 19528297	A	19950802	199711	E
AU 199660794	A	19970206	AU 199660794	A	19960729	199714	E
NO 199603219	A	19970203	NO 19963219	A	19960801	199715	E
CA 2182346	A	19970203	CA 2182346	A	19960730	199723	E
ZA 199606528	A	19970430	ZA 19966528	A	19960801	199723	E
JP 9190510	A	19970722	JP 1996214125	A	19960726	199739	E
KR 1997012221	A	19970329	KR 199632153	A	19960801	199815	E
MX 199603132	A1	19970701	MX 19963132	A	19960801	199827	E
TW 334547	A	19980621	TW 1996109199	A	19960729	199845	E
SG 52828	A1	19980928	SG 199610374	A	19960730	199904	E
AU 716433	B	20000224	AU 199660794	A	19960729	200020	E
US 6244506	B1	20010612	US 1996690442	A	19960726	200135	E
MX 209490	B	20020806	MX 19963132	A	19960801	200367	E
CN 1155714	A	19970730	CN 1996111815	A	19960802	200375	E

Priority Applications (no., kind, date): DE 19528297 A 19950802

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 757337	A2	DE	7	3	

Regional Designated States,Original: AT BE CH DE DK ES FI FR GB GR IE IT
   LU MC NL PT SE

Number	Kind	Lan	Pg	Dwg	Filing Notes
DE 19528297	A1	DE	7	3	
CA 2182346	A	EN			
ZA 199606528	A	EN	14		
JP 9190510	A	JA	6		
TW 334547	A	ZH			
SG 52828	A1	EN			
AU 716433	B	EN			Previously issued patent AU 9660794

Class Codes

...International Classification (Main): **G06K** , ...

... **G06K-017/00** ...

... **G06K-019/06** ...

... **G06K-019/07** ...

... **G06K-019/073** ...

... **G06K-005/00** ...

... **G06K-009/62**
... (Additional/Secondary): **G06K-019/10** ...

... **G06K-007/00**

Original Publication Data by Authority

Claims:
...at least one device for reading and the at least one device for writing
receives **from   a** user a personal **identification** number associated with
the individualizing code of the at least one data memory card to...

...one of the at least one device for reading and the at least one device
for writing **receives** from a user **an** extension password associated with
the individualizing code of the at least one data memory card...

18/3,K/1 **(Item 1 from file: 347)**
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

08044953   **Image available**
INFORMATION PROCESSOR AND FUNCTION ALLOCATION METHOD FOR KEY BUTTON USED
FOR INFORMATION PROCESSOR

PUB. NO.:   2004-157712 [JP 2004157712 A]
PUBLISHED: June 03, 2004 (20040603)
INVENTOR(s):   KOJO AKIHIRO
APPLICANT(s): TOSHIBA CORP
APPL. NO.:   2002-322091 [JP 2002322091]
FILED: November 06, 2002 (20021106)

ABSTRACT
...CPU 45 outputs a key code change command to a KBC 42 (step S102) to
change key **codes** of **extension** keys 46. When a button of an extension
key 46a or 46c is depressed during...

18/3,K/2 **(Item 2 from file: 347)**
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

05704928   **Image available**
ACCUMULATOR

PUB. NO.:   09-319728 [JP 9319728 A]
PUBLISHED: December 12, 1997 (19971212)
INVENTOR(s):   KONNO YOSHIYUKI
APPLICANT(s): KOKUSAI ELECTRIC CO LTD [000112] (A Japanese Company or
               Corporation), JP (Japan)
APPL. NO.:   08-140173 [JP 96140173]
FILED: June 03, 1996 (19960603)

ABSTRACT
...power consumption of an accumulator by reducing the 1 to 0 or 0 to 1
change of a **code** bit and an **extension** code bit...

18/3,K/3 **(Item 3 from file: 347)**
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

03983367   **Image available**
IMAGE STORING RETRIEVING DEVICE

PUB. NO.:   04-348467 [JP 4348467 A]
PUBLISHED: December 03, 1992 (19921203)
INVENTOR(s):   ISHIDA MASARU
APPLICANT(s): TOSHIBA SOFTWARE ENG KK [000000] (A Japanese Company or
               Corporation), JP (Japan)
               TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP
               (Japan)
APPL. NO.:   03-031623 [JP 9131623]
FILED: January 31, 1991 (19910131)
JOURNAL: Section: P, Section No. 1526, Vol. 17, No. 210, Pg. 41, April
               23, 1993 (19930423)

ABSTRACT

... when the key length after the change is longer than the key length before the **change** , the **extension** **code** is inputted in the rear direction or on the way from the key displaying. When...

18/3,K/4 **(Item 4 from file: 347)**
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

02507213 **Image available**
CONTROL FACILITIES FOR BRANCH RUNNING OF TRAVELING VEHICLE

PUB. NO.:   63-124113 [JP 63124113 A]
PUBLISHED: May 27, 1988 (19880527)
INVENTOR(s): MIFUNE AKIRA
APPLICANT(s): DAIFUKU CO LTD [351877] (A Japanese Company or Corporation),
              JP (Japan)
APPL. NO.:   61-270393 [JP 86270393]
FILED: November 13, 1986 (19861113)
JOURNAL: Section: P, Section No. 768, Vol. 12, No. 377, Pg. 149,
              October 07, 1988 (19881007)

ABSTRACT

PURPOSE: To flexibly **code** with **extension** and **changes** of the running routes and stopping positions of a traveling vehicle by using a memory...

18/3,K/5 **(Item 5 from file: 347)**
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

01007034 **Image available**
KEYBOARD

PUB. NO.:   57-157334 [JP 57157334 A]
PUBLISHED: September 28, 1982 (19820928)
INVENTOR(s): FUJIMAGARI HIDEYOSHI
APPLICANT(s): MITSUBISHI ELECTRIC CORP [000601] (A Japanese Company or
              Corporation), JP (Japan)
APPL. NO.:   56-042731 [JP 8142731]
FILED: March 24, 1981 (19810324)
JOURNAL: Section: P, Section No. 164, Vol. 06, No. 262, Pg. 106,
              December 21, 1982 (19821221)

ABSTRACT

PURPOSE: To make the **change** and **extension** in a generated **code** easy, by providing a display function possible for rewrite with keys generating information codes such...

18/3,K/6 **(Item 1 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0014475780 – Drawing available
WPI ACC NO: 2004-667408/
XRPX Acc No: N2004-528613
**Entities customization method for computer software systems, involves
automatically instantiating base extension entity, when base entity is
instantiated before receiving customization value**

Patent Assignee: MICROSOFT CORP   (MICT)
Inventor: BUSCH D E; MOREL M J; MORTENSEN D R; MORTENSEN R W; PLAISTED P E
Patent Family (2 patents, 2 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
US 20040177339	A1	20040909	US 2003383936	A	20030307	200465	B
JP 2004272911	A	20040930	JP 200464565	A	20040308	200465	E

Priority Applications (no., kind, date): US 2003383936 A 20030307

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20040177339	A1	EN	26	10	
JP 2004272911	A	JA	25		

Original Publication Data by Authority

Original Abstracts:
...facilitates customization of fields in objects in a software system
without requiring modification of source **code** . An **extension** entity is
associated with entities to be customized. The extension entity holds
customization properties to customize the entities...

18/3,K/7   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0013997053 - Drawing available
WPI ACC NO: 2004-178223/
XRPX Acc No: N2004-141609
**Database designing method in software business, involves creating and
storing domain, values for domain, virtual attributes and rules in
different relational database tables**
Patent Assignee: DULIBA K A   (DULI-I)
Inventor: DORSEY P R; DULIBA K A
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
US 6684216	B1	20040127	US 1999156561	P	19990929	200417	B
			US 2000668136	A	20000925		

Priority Applications (no., kind, date): US 1999156561 P 19990929; US
  2000668136 A 20000925

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 6684216	B1	EN	46	12	Related to Provisional US 1999156561

...list of valid values for domain in different database tables. The
virtual attribute specifying its **code** , rules **associated** with
customization and **extension** of database and function specifying syntax
are created and stored in different relational database tables.

18/3,K/8   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0013938150 - Drawing available

WPI ACC NO: 2004-118356/
XRPX Acc No: N2004-094542
**Lempel Ziv Welch data compressor used in image communication, has AND-gates
with prefix input code and character input to which input string having
prefix code and extension character are input using matrix switches**
Patent Assignee: UNISYS CORP   (BURS)
Inventor: COOPER A B
Patent Family (1 patents, 1 countries)
Patent   Application
Number   Kind   Date   Number   Kind   Date   Update
US 6674374   B1   20040106   US 2003351210   A   20030125   200412   B

Priority Applications (no., kind, date): US 2003351210   A   20030125

Patent Details
Number   Kind   Lan   Pg   Dwg   Filing Notes
US 6674374   B1   EN   16   7

Original Publication Data by Authority

Original Abstracts:
...of codes to be assigned to strings. Each string comprises a prefix
string, having an **associated** prefix **code** , and an **extension** character.
An AND-gate has a prefix code input and a character input for enabling...

   18/3,K/9   (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0013658674   - Drawing available
WPI ACC NO: 2003-754858/
XRPX Acc No: N2003-604815
**Data compression method for compressing data character of alphabets,
involves searching exact match for input stream by comparing input stream
with string having associated codes stored in prefix table**
Patent Assignee: UNISYS CORP   (BURS)
Inventor: COOPER A B
Patent Family (1 patents, 1 countries)
Patent   Application
Number   Kind   Date   Number   Kind   Date   Update
US 6628211   B1   20030930   US 2002101046   A   20020319   200371   B

Priority Applications (no., kind, date): US 2002101046   A   20020319

Patent Details
Number   Kind   Lan   Pg   Dwg   Filing Notes
US 6628211   B1   EN   17   7

...NOVELTY - A string of data characters having a prefix string followed by
an **extension** **character** and having **associated** respective **codes** , is
stored in a prefix table. An input stream is searched by comparing with
stored string in prefix table to determine exact match and outputting
output stream of **compressed** **codes**   **associated** with exact match. An
extended string associated with exact match code is stored in the...

   18/3,K/10   (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013193042 - Drawing available
WPI ACC NO: 2003-276728/200327
XRPX Acc No: N2003-219955
Voice CODEC designating system for IP telephone system, realizes change
access code **transmitted from** extension **telephone set, to register**
designated voice CODEC into voice converter of respective private branch
exchange
Patent Assignee: NEC CORP   (NIDE)
Inventor: OTSUKA K
Patent Family (5 patents, 4 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
US 20030016807	A1	20030123	US 2002200482	A	20020723	200327	B
CA 2394413	A1	20030123	CA 2394413	A	20020722	200327	E
JP 2003037683	A	20030207	JP 2001221738	A	20010723	200327	E
AU 2002300232	A1	20030612	AU 2002300232	A	20020723	200455	E
JP 3680772	B2	20050810	JP 2001221738	A	20010723	200554	E

Priority Applications (no., kind, date): JP 2001221738 A 20010723

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20030016807	A1	EN	10	3	
CA 2394413	A1	EN			
JP 2003037683	A	JA	7		
JP 3680772	B2	JA	10		Previously issued patent JP 2003037683

Voice CODEC designating system for IP telephone system, realizes change
access code **transmitted from** extension **telephone set, to register**
designated voice CODEC into voice converter of respective private branch
exchange

   18/3,K/11   **(Item 6 from file: 350)**
DIALOG(R)File 350:Derwent WPIX

0012461346 - Drawing available
WPI ACC NO: 2002-407419/200244
XRPX Acc No: N2002-319985
Digital processor correctness verification method involves testing of micro
code using hardware emulator according to logic gates to provide TCP/IP
connection
Patent Assignee: INT BUSINESS MACHINES CORP   (IBMC)
Inventor: BOEHM H; BUTTLAR J V; HORSCH A; KAYSER J; KOERNER S; KUENZEL M;
  VON BUTTLAR J
Patent Family (3 patents, 27 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
EP 1191443	A2	20020327	EP 2001118672	A	20010803	200244	B
US 20020087917	A1	20020704	US 2001960154	A	20010921	200247	E
US 6834359	B2	20041221	US 2001960154	A	20010921	200501	E

Priority Applications (no., kind, date): EP 2000120734 A 20000922

Patent Details

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Number          Kind Lan   Pg  Dwg  Filing Notes
EP 1191443       A2  EN     8    2
Regional Designated States,Original:  AL AT BE CH CY DE DK ES FI FR GB GR
    IE IT LI LT LU LV MC MK NL PT RO SE SI TR
```

   Alerting Abstract ...stage that is before the actual manufacture of the
hardware. So, developing and testing necessary **code   changes** or
extension can be done straight away...

   18/3,K/12   **(Item 7 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0011191215 - Drawing available
WPI ACC NO: 2002-129399/
XRPX Acc No: N2002-097568
**Data compression method involves determining longest match between input
stream and stored strings by matching data characters of input stream and
stored strings until mismatch occurs**
Patent Assignee: UNISYS CORP   (BURS)
Inventor: COOPER A B

Patent Family (2 patents, 22 countries)
```
Patent                         Application
Number          Kind  Date     Number         Kind   Date      Update
US 6307488       B1   20011023  US 2000564956   A    20000504   200217  B
WO 2001086818    A2   20011115  WO 2001US13729  A    20010430   200217  E
```

Priority Applications (no., kind, date): US 2000564956 A 20000504

Patent Details
```
Number          Kind  Lan   Pg  Dwg  Filing Notes
US 6307488       B1   EN    49   20
WO 2001086818    A2   EN
National Designated States,Original:  CA JP
Regional Designated States,Original:  AT BE CH CY DE DK ES FI FR GB GR IE
    IT LU MC NL PT SE TR
```

Original Publication Data by Authority

Original Abstracts:
...similarly configured stored strings until a longest match is determined.
Each stored string has a **code   associated** therewith and the **code** of
the longest match is output by the compressor. An extended string is stored
comprising...

...up to a maximum of one less than the predetermined number. In this
embodiment, when **extension** of a string for storage would result in the
predetermined number of data characters following...

...similarly configured stored strings until a longest match is determined.
Each stored string has a **code   associated** therewith and the **code** of
the longest match is output by the compressor. An extended string is stored
comprising...

   18/3,K/13   **(Item 8 from file: 350)**

0010824342 - Drawing available
WPI ACC NO: 2001-441587/
XRPX Acc No: N2001-326669
System for embedding extension codes in data files for layer use which includes logic for enhancing the application using the file data
Patent Assignee: STAGECAST SOFTWARE INC (STAG-N)
Inventor: NELSON R P; POSEY S; SMITH D C
Patent Family (2 patents, 81 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2001042910	A1	20010614	WO 2000US33448	A	20001207	200147	B
AU 200119574	A	20010618	AU 200119574	A	20001207	200161	E

Priority Applications (no., kind, date): US 1999457934 A 19991208

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2001042910	A1	EN	28	10	

National Designated States,Original: AL AM AT AU AZ BA BB BG BR BY CA CH
   CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC
   LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
   TJ TM TR TT UA UG UZ VN YU ZW
Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH
   GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200119574	A	EN	Based on OPI patent	WO 2001042910

   Alerting Abstract DESCRIPTION - INDEPENDENT CLAIMS are included for
method for using and storing **extension codes associated** with a first
application, for a computer program and for a system for transferring
extension...

Original Publication Data by Authority

Original Abstracts:
...a data file (202). A data file is used on a first application that has
extension code associated therewith. The **extension code** includes
logic for enhancing the application. At least a portion of the extension
code is...

 18/3,K/14   (Item 9 from file: 350)

0010318781 - Drawing available
WPI ACC NO: 2000-633282/
XRPX Acc No: N2000-469301
**Supervision and control system of railway electric installation, detects
change in operational state of feeder systems by which extension code is
searched from table for updating extension conditional information**
Patent Assignee: MEIDENSHA CORP (MEID)
Inventor: INOUE H
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
JP 2000259231	A	20000922	JP 199964404	A	19990311	200061	B

Priority Applications (no., kind, date): JP 199964404   A 19990311

Patent Details
Number   Kind Lan   Pg Dwg Filing Notes
JP 2000259231   A   JA   7   9

...sensed in any feeder system, operation conditional information of all
other systems is acquired and **extension   code** for state **changed** feeder
system is searched and extension connection with one of suitable substation
is performed to...

 18/3,K/15   (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0002194034
WPI ACC NO: 1981-A2273D/
Central processing unit for data processing system - has programmable
optional auto-incrementing of memory pointer registers without requiring
instruction operation code
Patent Assignee: BELL TELEPHONE LAB INC   (AMTT)
Inventor: BLAHUT D E; COPP D H; STANZIONE D C
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
US 4240142	A	19801216	US 1978974361	A	19781229	198102	B
			US 1978974361	A	19781229		

Priority Applications (no., kind, date): US 1978974361 A 19781229

   Alerting Abstract ...The contents of the op- **code   extension** register
can be **changed** by means of an instruction for transferring a new code to
the OER.

Original Publication Data by Authority

Original Abstracts:
...in the OER corresponding to the particular memory pointer register. The
contents of the op- **code   extension** register can be **changed** by means of
an instruction for transferring a new code to OER.

 18/3,K/16   (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0002027220
WPI ACC NO: 1980-F9547C/198028
Computer CPU with extended operating code - gives enlarged field of
instructions for small word length microprocessors with cyclic operating
stages
Patent Assignee: WESTERN ELECTRIC CO INC   (AMTT)
Inventor: HUANG V K; RUTH R L
Patent Family (13 patents, 11 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
BE 880888	A	19800416				198028	B

```
WO 1980001423   A   19800710  WO 1979US1045    A   19791206  198030  E
FR 2445555      A   19800829                                 198042  E
SE 198005989    A   19801020                                 198045  E
NL 197920197    A   19801128                                 198050  E
GB 2050659      A   19810107                                 198102  E
DE 2953440      A   19810409                                 198130  E
US 4293907      A   19811006  US 1978974426    A   19781229  198143  E
JP 55501075     A   19801203                                 198149  E
CA 1123959      A   19820518                                 198223  E
GB 2050659      B   19830518                                 198320  E
CH 650600       A   19850731                                 198534  E
IT 1127771      B   19860528                                 198741  E
```

Priority Applications (no., kind, date): US 1978974426 A 19781229

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
BE 880888	A	FR			
WO 1980001423	A	EN			

National Designated States,Original: CH DE GB JP NL SE

Number	Kind	Lan	Pg	Dwg	Filing Notes
SE 198005989	A	SV			
CA 1123959	A	EN			
CH 650600	A	DE			

Alerting Abstract ...operation code part, which is stored on each instruction cycle, and an address part. The **extension   code** register is only **changed** when a word is called up by the c.p.u. The system offers a

23/3,K/1   (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
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05436594   **Image available**
TRAVELING   OBJECT   FACSIMILE   COMMUNICATION   SYSTEM   AND MESSAGE CONVERTING
DEVICE

PUB. NO.:   09-051394 [JP 9051394 A]
PUBLISHED: February 18, 1997 (19970218)
INVENTOR(s):   NAKAI JUNJI
                 IWABORI TADAO
                 KIHARA YASUSHI
APPLICANT(s):   OKI ELECTRIC IND CO LTD [000029] (A Japanese Company or
                 Corporation), JP (Japan)
                 CENTRAL JAPAN RAILWAY CO [491659] (A Japanese Company or
                 Corporation), JP (Japan)
APPL. NO.:   07-201958 [JP 95201958]
FILED: August 08, 1995 (19950808)

ABSTRACT
... of through radio wave transmission route. On the contrary, the
converting device 12 executes data **extension** and **code** **reverse**
conversion, etc., as against the error resistant message received with a
card public telephone set...

23/3,K/2   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0005076416 - Drawing available
WPI ACC NO: 1990-060709/199009
Encoding-decoding system for 4-11 codes in optical recording-reading -
encodes 8-bit binary code to 11-bit channel code by adding 3-bit extension
parity code regulating ones in channel codes at 4
Patent Assignee: MATSUSHITA ELEC CORP AMERICA (MATU); MATSUSHITA ELEC IND
   CO LTD (MATU); MATSUSHITA ELEC IND KK (MATU)
Inventor: ISHIBASHI H; TANAKA S
Patent Family (7 patents, 5 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
EP 355999	A	19900228	EP 1989307403	A	19890720	199009	B
JP 2033221	A	19900202	JP 1988184308	A	19880722	199011	E
US 5008669	A	19910416	US 1989383153	A	19890719	199118	E
EP 355999	A3	19920122	EP 1989307403	A	19890720	199322	E
KR 199303259	B1	19930424	KR 198910408	A	19890722	199421	E
EP 355999	B1	19960306	EP 1989307403	A	19890720	199614	E
DE 68925845	E	19960411	DE 68925845	A	19890720	199620	E
			EP 1989307403	A	19890720		

Priority Applications (no., kind, date): JP 1988184308 A 19880722

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 355999	A	EN	18	7	
Regional Designated States,Original: DE FR GB NL					
EP 355999	A3	EN			
EP 355999	B1	EN	20	7	
Regional Designated States,Original: DE FR GB NL					
DE 68925845	E	DE			Application EP 1989307403

Alerting Abstract ...are three methods of encoding depending on the number, j, of bits in the binary **code** . First the **extension**   **code** contains (i-j) bits. Second, if j is larger than i, all bits are **reversed** before adding the **extension** . Third, for those **codes** left, they are converted by table lookup...

Original Publication Data by Authority

Claims:
...are three methods of encoding depending on the number, j, of bits in the binary **code** . First the **extension**   **code** contains (i-j) bits. Second, if j is larger than i, all bits are **reversed** before adding the **extension** . Third, for those **codes** left, they are converted by table lookup...

...are three methods of encoding depending on the number, j, of bits in the binary **code** . First the **extension**   **code** contains (i-j) bits. Second, if j is larger than i, all bits are **reversed** before adding the **extension** . Third, for those **codes** left, they are converted by table lookup...

0011121409
WPI ACC NO: 2002-057692/
XRAM Acc No: C2002-016649
XRPX Acc No: N2002-042556
A string match test method and tool with moire
Patent Assignee: KAGAKU GIJUTSU SHINKO JIGYODAN (KAGA-N)
Inventor: TANIDA
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
JP 2001211884	A	20010807	JP 200023612	A	20000201	200208	B

Priority Applications (no., kind, date): JP 200023612   A   20000201

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 2001211884	A	JA	10	12	

Alerting Abstract ...conversion of 1st and 2nd string data to spatial
code patterns ; extension of the spatial **code patterns** to a
predetermined length or longer in vertical direction; image treatment of
the spatial code...

Extension Abstract
...string datum with a pattern conversion apparatus, image treatment of
the 2nd spatial code patterns, **rotation** and overlapping of 2 patterns,
moire formation of the overlapped patterns, and detection and assessment...

0010529452 - Drawing available
WPI ACC NO: 2001-131803/
XRPX Acc No: N2001-097923
**Activity estimation apparatus for moving picture expert group based image
encoder, outputs final activity obtained by reconfiguring one of extracted
activity vector output based on picture type of transmitted image**
Patent Assignee: HYUNDAI ELECTRONICS IND CO LTD (HYUN-N); KOREA
   BROADCASTING SYSTEM CORP (KOBR-N); KOREA COMMUNICATIONS CO LTD (KOCO-N)
Inventor: KIM G H; KIM G J; KIN K
Patent Family (2 patents, 2 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
JP 2000350218	A	20001215	JP 2000132486	A	20000501	200114	B
KR 2000067688	A	20001125	KR 199915697	A	19990430	200130	E

Priority Applications (no., kind, date): KR 199915697   A   19990430

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 2000350218	A	JA	9	6	
KR 2000067688	A	KO		5	

Alerting Abstract ...NOVELTY - The estimation units (120,140) extract

forward direction and **reverse** direction activity vectors, based on
comparison result of original and decoded images with distinguished picture
...
...USE - For activity estimation range **extension** in **image** **encoding**
system employing moving **picture** expert group (MPEG)1 and MPEG2 techniques
...

  27/3,K/3   **(Item 3 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0006728927
WPI ACC NO: 1994-111218/
XRPX Acc No: N1994-087125
**Audio and video processor with data compression and video effect functions
- has CPU with memory control mechanism, I-O control mechanism, control
unit receiving picture, sound and program data from outer memory via
interface, and picture data expansion unit**
Patent Assignee: HUDSON KK (HUDS-N); HUDSON SOFT CO LTD (HUDS-N); ITAGAKI
   F (ITAG-I); SEIKO EPSON CORP (SHIH)
Inventor: ITAGAKI F
Patent Family (8 patents, 6 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
EP 590785	A2	19940406	EP 1993306649	A	19930823	199414	B
TW 219397	A	19940121	TW 1993107345	A	19930908	199414	E
CA 2105241	A	19940331	CA 2105241	A	19930831	199424	E
JP 6180753	A	19940628	JP 1992285155	A	19920930	199430	E
EP 590785	A3	19950809	EP 1993306649	A	19930823	199613	E
US 5630105	A	19970513	US 1993112366	A	19930827	199725	E
			US 1995563779	A	19951127		
EP 590785	B1	19990804	EP 1993306649	A	19930823	199935	E
DE 69325867	E	19990909	DE 69325867	A	19930823	199943	E
			EP 1993306649	A	19930823		

Priority Applications (no., kind, date): JP 1992285155 A 19920930

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 590785	A2	EN	84	69	
Regional Designated States,Original: DE FR GB NL					
TW 219397	A	ZH	29	69	
CA 2105241	A	EN			
JP 6180753	A	JA	44	69	
EP 590785	A3	EN			
US 5630105	A	EN	78	69	Continuation of application US
1993112366					
EP 590785	B1	EN			
Regional Designated States,Original: DE FR GB NL					
DE 69325867	E	DE			Application EP 1993306649
					Based on OPI patent EP 590785

Original Publication Data by Authority

Claims:
...unit;   an image data extension unit which includes scale-down data
extending means including a **reverse** DCT converter, a **reverse**
quantifying system, a Huffman coding and decoding system, and a run-length

coding and decoding...

...an image data extension unit (106) which includes scale-down data
extending means including a **reverse** DCT converter, a **reverse** quantizing
system, a Huffman coding and decoding system, and a run-length coding and
decoding...

...encoder unit, coupled with the video display unit, the control unit, and
the image data **extension** unit, for **encoding** each **image** data of the
external-block, internal-dot, and external-dot types, respectively;means,
coupled with...

   27/3,K/4   (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0004302096 - Drawing available
WPI ACC NO: 1988-029829/
**Automatic contactless three-dimensional measuring of objects - using
swivelable** camera **sensors and angular** coders **coping with large**
extension
Patent Assignee: MANNESMANN AG   (MANS)
Inventor: DEPPE G J; FISTER W; SCHOENARTZ N; SCHONARTZ N
Patent Family (4 patents, 5 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
DE 3624959	A	19880128	DE 3624959	A	19860723	198805	B
EP 256968	A	19880224	EP 1987730044	A	19870421	198808	E
DE 3624959	C	19900405	DE 3624959	A	19860723	199014	E
			DE 3624959	A	19860723		
US 4937766	A	19900626	US 198777418	A	19870723	199028	E

Priority Applications (no., kind, date): DE 3624959   A 19860723

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
DE 3624959	A	DE	5	5	
EP 256968	A	DE			

Regional Designated States,Original: DE FR GB IT

...**using swivelable** camera **sensors and angular** coders **coping with large**
extension

   Equivalent Alerting Abstract ...object are worked out, from an image
delivered from each camera-sensor (1) and with **rotation** of the camera
sensors respectively by motors (4) about two axes. A determined
characteristic point...

University of Southern Queensland

Faculty of Engineering & Surveying

Video Compression using ITU-T Recommendation H.264

A dissertation submitted by

B. Farmer

in fulfilment of the requirements of

ENG4112 Research Project

towards the degree of

Bachelor of Engineering(Computer Systems)

Submitted: October, 2005
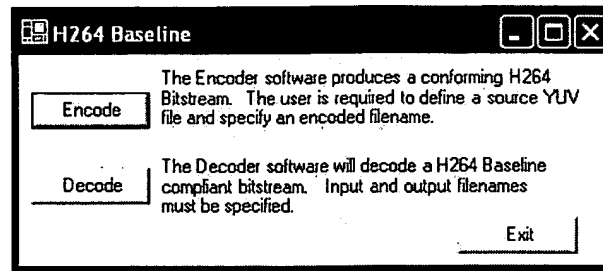
Figure 6.1: Start Screen of H264 Baseline Software

6.3   Encoder Interface

Encode Screen

Figure 6.2 displays a screen shot of the information tab. This highlights to the user that changes effected to the H264 Encoder parameters may affect the fidelity of the decoded video sequence or the encoded file size.

After changes are made to the encoder parameters, the user will be required to select the Apply button in order to allow for the parameters to be written to the encoder.cfg file in the correct sequence. This file is read by the encoder in order to provide the relevant parameters to correctly encode the video sequence. The Apply button will also initiate the encoding process.

The user may also select to cancel their interaction with the encoder.

Figure 6.2: Information Screen of H264 Baseline Encode.

I have determined that the parameters at the top the Encode screen are the most important parameters for the encoder and specific file names are required to be changed by the user.

Input File This file should contain the YUV sequence to be encoded.

Output File This file will contain the encoded video sequence.

Video Mode The user may select which bitstream format the output file will employ.

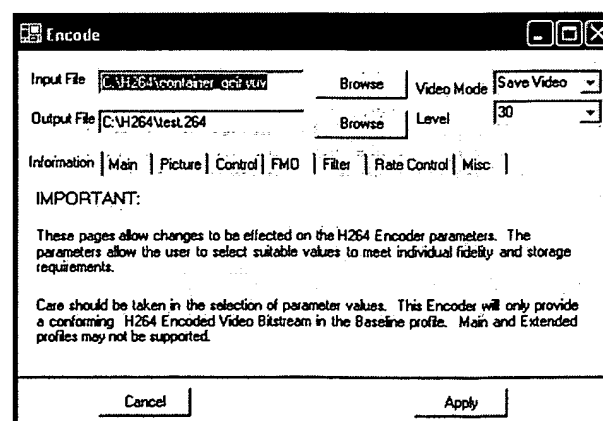> **Saved Video** If this parameter is selected, the encoded sequence will be in the byte stream form, or as specified by Annex B. This is the default parameter.
>
> **Live Video** If this parameter is selected, the encoded sequence will be in bit stream format, Good for use for RTP, such as video conferencing.

Level The user may select the required level that the encoder will use. This affects the decoded picture buffer size. There are 15 levels from which the user can choose. Level 30 is the default level.

Main Tab

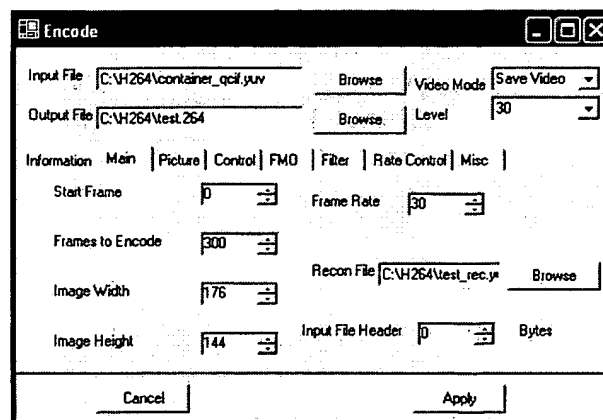The main screen provides access to the major video sequence parameters.

Figure 6.3: Main Screen of H264 Baseline Encode.

Start Frame This parameter allows the user to select from where in the video sequence that they would like to start encoding.

Frames to Encode This parameter allows the user to select the total number of frames that they would like to encode. I have set the number of frames to 50.

Image Width and Image Height These parameters determine the width and height of the image that the user would like to encode. As the width and height is measured in pixels, they must be divisible by 16 in order to conform to the size of macroblocks. The default is set for a QCIF size, 176×144 pixels.

Frame Rate This is the number of frames that should be displayed per second when decoded and viewed. I have used a default value of 30 frames per second

Recon File The recon file is a file that should be what is seen at the decoder. The encoder needs to know what the decoder is seeing, and therefore what predictions they will be using for motion compensation.

Input File Header This parameter is the number of bytes of the input file that is for header information. I have allowed a 0 default value.

Picture Tab

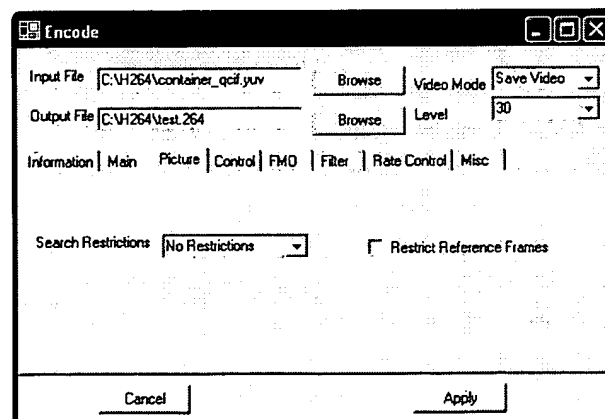Figure 6.4 is a screen shot of the Picture screen of the H.264 Baseline Encode Software.

Figure 6.4: Picture Screen of H264 Baseline Encode.

The picture screen consists of only two parameters being search restrictions and reference frames restrictions.

Search restrictions allows 1 of 3 choices of searching for similar frames or blocks for

motion prediction. The search range may be restricted to using only older reference frames, both blocks and reference frames or by allowing no search restrictions to be used. I have set the Search Restrictions parameter to have a default value of No Restrictions.

Restrict Reference Frames when unchecked allows reference frames to be checked for forward prediction. The checkbox's default is to no be selected.

Control Tab

Figure 6.5 is a screen shot of the Control tab of the H.264 Baseline Encode Software. This tab page provides many control parameters that can be employed in the encoding of a video sequence.
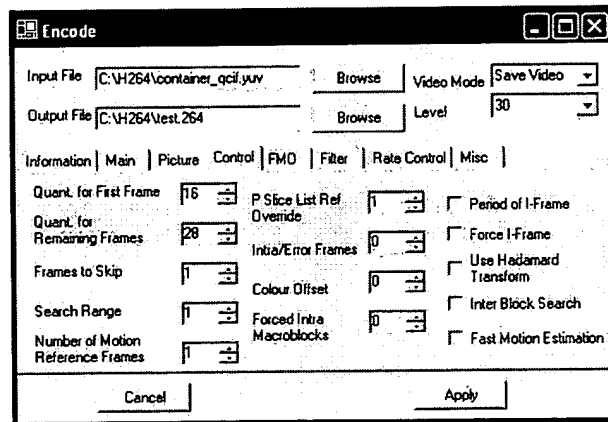
Figure 6.5: Control Tab of H264 Baseline Encode.

Each of the parameters that may be changed by the user listed on the Control Table are discussed below.

Quantisation for First Frame This variable allows the user to define the quantisation parameter that will be used in the encoding of the first frame of the video sequence. I have used a default quantisation parameter of 16.

Quantisation for Remaining Frames This parameter has a default of 28 and is used for quantisation for the remaining frames of the video sequence.

Frames to Skip This parameter allows the user to specify the number of frames to skip in between each frame to be encode. If this has a value of 1, then every second frame of the video sequence will be encoded.

Search Range The search range is the range that will be searched for motion estimation. If this value is greater than 0, then all of the surrounding blocks of a block defined by a motion vector will be searched. If this value is 0, then only the defined block will be looked at. I have allowed all of the surrounding blocks of the motion vector indicated block to be searched as default.

Number of Motion Reference Frames The number of frames allowed must be a value less than 16, and its main stipulation is that the memory requirements of the decoder picture buffer must be capable of allowing that specific number of frames. I have used a default value of 1.

P Slice List Ref Override This value determines the number of P Slices that will be allowed in the reference list and is defaulted to 1.

Intra/Error Frames This parameter is used to provide error robustness to the encoded video sequence. No extra intra blocks or frames are encoded, if this parameter is 0. If the user defines this parameter to be 1, 1 group of blocks per frame will be intra coded. If 2, 1 group of blocks will be intra coded every 2 frames. This parameter is used to prevent past macroblocks errors to be continued to future macroblocks. No extra intra blocks are to be encoded is the default.

Colour Offset This offset must be a value between -51 and 51. This parameter has a default value of 0 and changes will affect how bright the image will be when decoded.

Forced Intra Macroblocks This numerical value is used to define the minimum number of macroblocks that should be intra coded per frame.

Period of I-Frame This checkbox allows the user to define that there should be a minimum of 0 or 1 frames in between each encoded Intra Frames. I have used a default value of 0 frames.

Force I-Frame The user would check this parameter to force intra pictures to be encoded as IDR pictures. An IDR picture forces no frames to be allowed to use

any pictures prior to the IDR for motion compensation. I have left this parameter unchecked as the default setting.

Use Hadamard Transform The user would select to use Hadamard Transform when an additional transform is required.

Inter Block Search This parameter if checked allows all available block sizes to be searched.

Fast Motion Estimation If FME is checked, motion estimation will be conducted on the integer blocks, otherwise a full pel search for motion estimation is allowed. The default setting allows for a full pel search to be allowed.

FMO Tab

Figure 6.6 is a screen shot of the FMO tab of the H.264 Baseline Encode Software. This tab page allows the user to select the slice mode and whether to employ FMO.

There are four different slice modes that may be employed by the encoder. The first slice mode is off and there are therefore no restrictions placed between the macroblocks and the slice. This mode is the default slice mode. Fixed macroblocks is another slice mode, and will allow only a specific number of macroblocks to be used per slice. Fixed rate and Callback only allow slices to contain a specific maximum number of bits. Should this number be exceeded, macroblocks will be removed from the slice.
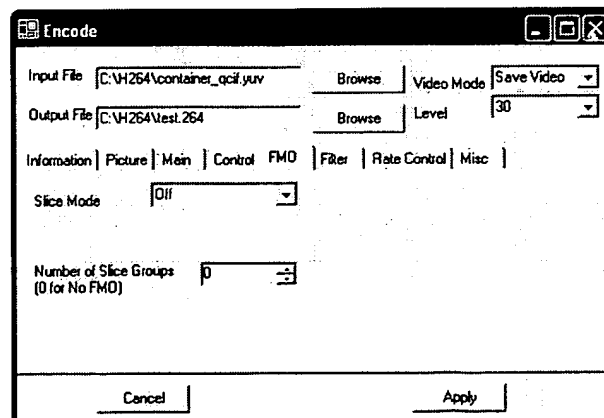

Figure 6.6: FMO Tab of H264 Baseline Encode - No FMO.

Figure 6.6 is a screen shot used where FMO is not employed. The number of slice groups allowed to reproduce the frame is 1. The macroblocks within the slice are processed in raster scan order. This tab layout shows the default values used by the software. When FMO is not employed the macroblocks are all included in one slice group and processed in raster scan order.

The six defined macroblock mapping methods are shown in Figure ??. The explicit map that is used to map individual macroblocks to slices should be contained in a text file which will be referred to as the Slice Group File Name.
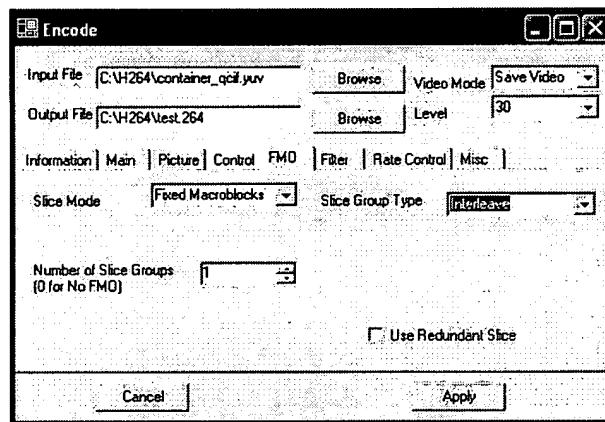
Interleave Slice Map

Figure 6.7: FMO Tab of H264 Baseline Encode - Interleave Slice Map.

Figure 6.7 is a screen shot used where FMO is employed with an interleave map for ordering of the macroblocks within the slice. Each macroblock row is allocated to consecutive slice groups.

Dispersed Slice Map

Figure 6.8 is a screen shot used where FMO is employed with a dispersed slice map. Each consecutive macroblock will be allocated in turn to consecutive slice groups.

Foreground with left-over Slice Map

Figure 6.9 is a screen shot of where the slice group map is foreground slice groups followed by a left over slice. A slice group map configuration file is required to specify
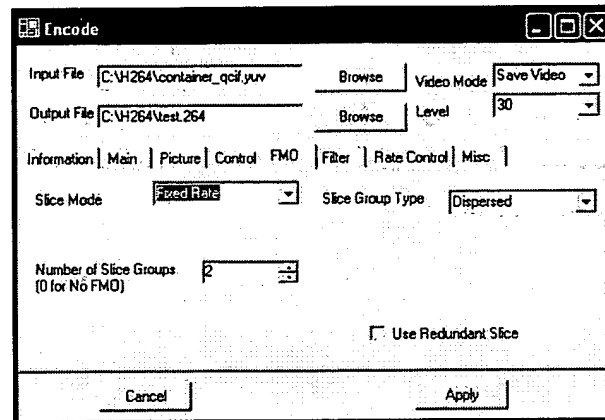
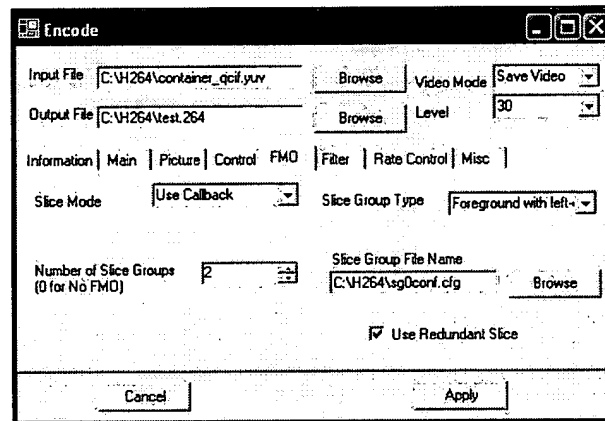Figure 6.8: FMO Tab of H264 Baseline Encode - Dispersed Slice Map.

Figure 6.9: FMO Tab of H264 Baseline Encode - Foreground with left-over Slice Map.

the number of macroblocks that should be employed within each slice group.

Box-Out Slice Map

The FMO tab to use for a box-out slice map is shown in Figure 6.10. Box-out mac-
roblock ordering may be conducted either clockwise or counterclockwise. Consecutive
macroblocks are allocated to the same slice until a certain number of macroblocks is
reached as specified by the user defined slice group change rate parameter.

Raster Scan Slice Map

The raster scan FMO tab is shown in Figure 6.11. Raster scan macroblock ordering
is conducted from left to right, top to bottom. Macroblock ordering may also be
conducted in reverse raster scan order. Each slice group will contain the number of
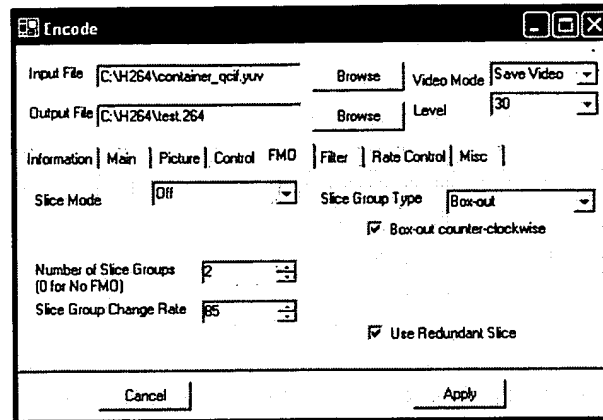
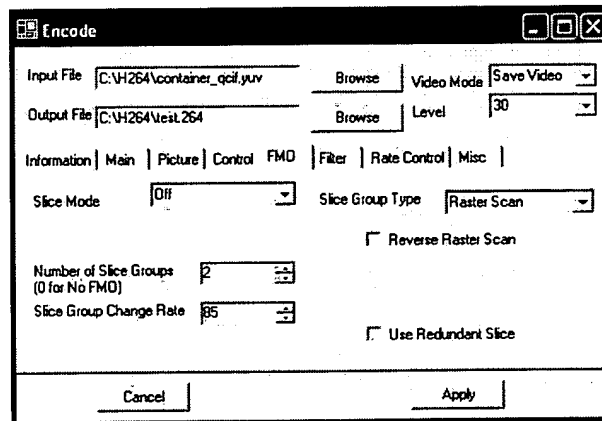Figure 6.10: FMO Tab of H264 Baseline Encode - Box-out Slice Map.

Figure 6.11: FMO Tab of H264 Baseline Encode - Raster Scan Slice Map.

macroblocks specified in the slice group change rate parameter.

Wipe Slice Map

The FMO tab shown in Figure 6.12 is used for wipe right macroblock ordering. The slice group change rate defines the number of macroblocks allocated to each slice group from top to bottom left to right. The macroblock ordering may also be conducted in the reverse order.

Explicit Slice Map

The Explicit slice map used for FMO would be completely user defined, with each individual macroblock being allocated to a specific slice group. This map would be defined in the slice group file determined by the user.
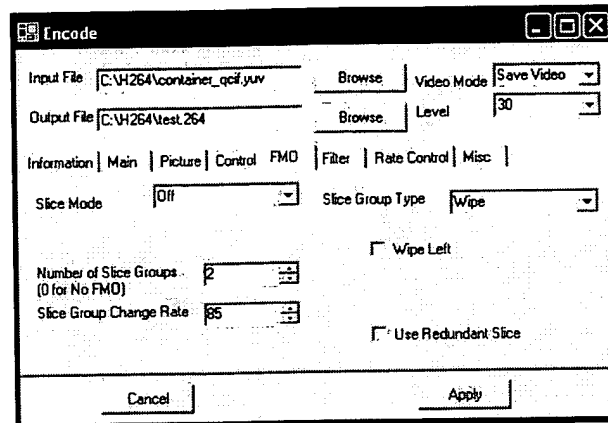
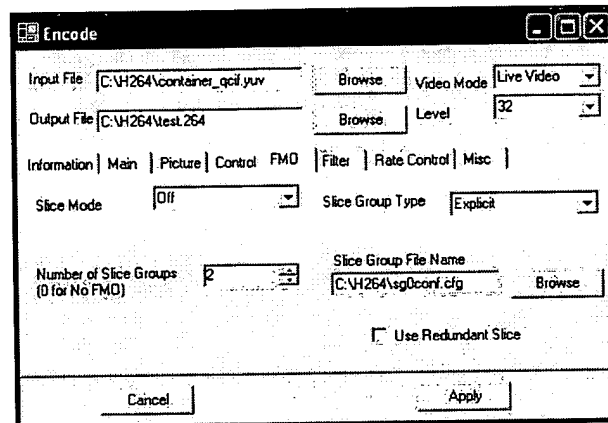Figure 6.12: FMO Tab of H264 Baseline Encode - Wipe Slice Map.

Figure 6.13: FMO Tab of H264 Baseline Encode - Explicit Slice Map.

Filter Tab

Figure 6.14 displays a screen shot of H.264 Baseline Encode Software's Filter tab.

This tab allows the Deblocking Filter to be configured or disabled.

The Alpha and Beta offsets are used in conjunction with the quantisation parameter to define when the deblocking filter will be employed. The filter is employed for small changes and will be switched off if is a significant change in between blocks. Significant changes are expected to be as a result of a change within an image, as opposed to blocking artifacts. The larger the quantisation parameter the more block edges that will be filtered.

An example of disabling the filter completely is shown in Figure 5.3.

7.3.1   Methodology

I have encoded the bitstream using the default parameters described in Chapter 6 to produce a H.264 conforming bitstream named test.264.

The H264 file is decoded using optimised H264 Baseline software, and two freely available decoders, being InterVideo's WinDVD Platinum player (2005) and ImToo Software Studio's MPEG Encoder (2005).

7.3.2   Results

Figure 4.2 shows the first frame of the original encoded sequence.

Figure 5.2 shows the first frame of the container_qcif sequence decoded using the H264 Baseline software.

a. Frame 0 decoded using WinDVD   *b. Frame 0 decoded using ImToo MPEG Encoder*
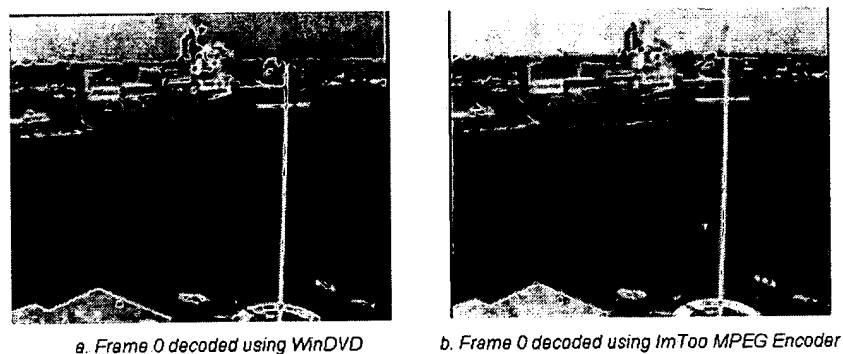
Figure 7.1: a. Decoded Frame using WinDVD Platinum. b. Decoded Frame using ImToo MPEG Encoder.

In order to use the ImToo MPEG Encoder, the file extension was required to be changed to test.h264.

Original Frame The original frame is very blocky for background areas of similar colour. The original frame is not smoothed for consistency, has sharp edges and the contrast is prominent.

Decoded Frame The decoded frame uses a contrast that is quite prominent, however